## HOUSTON AUTHORITY

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Via Certified Mail 7010 3090 0000 8673 2529

March 22, 2012

Mr. Gary Miller, P.E. Remediation Project Manager 1445 Ross Avenue, Suite 1200 Mail Code: 6SF-RA Dallas, TX 75202-2733

Re: Follow-up Information from Conference Call of February 29, 2012

Dear Mr. Miller:

Enclosed is the Port of Houston Authority's "Follow-up Information from Conference Call of February 29, 2012." We would appreciate your review and consideration of these comments. If you have any questions, please contact me at 713-670-2663.

Very truly yours,

Linda Henr

Linda Henry

Enclosure

cc: Nicole Hausler (PHA) Garry McMahan (PHA)



March 22, 2012

## Follow-up Information from Conference Call of February 29, 2012

On behalf of the Port of Houston Authority (PHA), HDR has summarized the requested information from our conference call of February 29, 2012.

• Tidal excursion upstream – As requested, the following summarizes the basis for the PHA's comment on circulation in the estuary in the PSCR. Figure 6-10 of the PSCR shows the tidal velocities near the Site ranging from -20 to +20 cm/sec in both north/south and east/west directions. The average flooding velocity over the 12.42 hr tide between slack tides (when the velocity is zero) would be 10-12 cm/sec, resulting in a travel distance of over 14,645 ft (12.4 hr x 3600 sec/hr x 10 cm/sec/30.48 cm/ft) or 2.8 miles upstream along the channel. Contaminants have been potentially distributed along that entire excursion, impacting sediments throughout that upstream area. The Fate and Transport Report should be evaluated to determine if it accurately portrays this upstream dispersion of contaminants. Figures 3-14, 15, 16 of the Fate and Transport Study show the tidal velocities measured and simulated by the model.

Background data interpretation – Analyses at other CERCLA sites and on the EPA web site reference comparison of means in evaluating background data. The current references to CERCLA background analyses are to EPA 540-R-01-003 OSWER 9285.7-41 September 2002. An additional reference provided by EPA, the Facts Sheet for ProUCL 4.0 A Statistical Software Package for Environmental Applications for Data Sets With and Without Nondetect Observations, cites various statistics that might be used to characterize background conditions and to compare background to site data. This Fact Sheet includes an introduction that emphasizes analysis and comparisons of means as follows:

Exposure assessment, risk assessment and management, and cleanup decisions at potentially polluted sites are often made based upon the mean concentrations of the contaminants of potential concern (COPCs). Typically, the mean concentration of a COPC at a contaminated site is unknown, and is frequently estimated by the sample mean based upon the data collected from the site areas under investigation. In order to address the uncertainties associated with the estimates of the unknown mean concentrations of the COPCs, appropriate 95% upper confidence limits (UCLs) of the respective unknown means are used in many environmental applications including the estimation of exposure point concentration (EPC) terms.

Because the data analysis references and examples in this guidance and others include comparisons of means as well as individual data points, EPA should require that respondents provide statistics on the means as well as the analyses offered. While various statistics might be appropriate for various analyses, references by the respondents to specific EPA guidance are necessary. Where analyses do not conform to EPA guidance, technically sound justification is needed.

• Residential use - Figure 2-6 of the RAM shows residential land use on the west side of the peninsula south of I-10 and many other properties along the River.

Any questions concerning these comments should be communicated to Linda Henry, Port of Houston Authority.

Sincerely,

Thomas E. Pease, PE, PhD Senior Professional Associate

Cc: Kerri Snyder, AICP, Project Manager